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PATENT

Customer No. 22,852

Attorney Docket No. 05725.0944

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Eric TERRANOVA et al.

Application No.: 09/889,503

Date of Nat'l Stage Entry: July 18, 2001

35 U.S.C. § 371 Date: October 22, 2001

For: NOVEL CATIONIC OXIDATION  
BASES, THEIR USE FOR  
OXIDATION DYEING OF  
KERATINOUS FIBRES, DYEING  
COMPOSITIONS AND METHODS  
OF DYEING

Group Art Unit: 1751

Examiner: E. Elhilo

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REQUEST FOR RECONSIDERATION**

In reply to the Office Action dated March 3, 2003, favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

**I. Status of the Claims**

Claims 23-55 are pending in this application. The Examiner has rejected claims 23-25, 28, 29, 32-37, and 40-55 as obvious. Claims 26, 27, 30, 31, 38, and 39 have been indicated allowable, but stand objected to as being dependent on a rejected base claim. No claim is amended by this response.

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## II. § 103 Obviousness Rejection

The Examiner has rejected claims 23-25, 28, 29, 32-37, and 40-55 under 35 U.S.C. § 103 as obvious over Terranova et al. Applicants respectfully traverse the rejection on the grounds that the Examiner has failed to present a *prima facie* case of obviousness.

The present claims are directed to pyrazolo[1,5-a]pyrimidines comprising cationic groups for use as an oxidation base for the oxidation dyeing of keratinous fibers. According to the Examiner, Terranova teaches a composition comprising "at least one first oxidation base of pyrazolo (1,5-a) pyrimidine derivative . . . ." Office Action at 2. Furthermore, the Examiner hypothesizes that when certain conditions are met with respect to the reference compound, the structure of the present invention and that of the reference compound are similar – not identical, but merely similar.

The Examiner attempts to support his position that the similar amine compound of the prior art would render obvious the presently claimed quaternary amine compounds by citing to Terranova's mention of a tertiary amine. The Examiner further cites case law finding that primary amines are unpatentable and obvious over secondary and tertiary amines. Office Action at 4 (citing *In re Hoeksema*, 154 USPQ 169 (CCPA 1967); *Ex parte Bluestone*, 135 USPQ 199 (Pat. Office Bd. App. 1961); and *Ex parte Weston*, 121 USPQ 428 (CCPA 1958)).

First, the Court in the above-referenced cases premised its decisions in part on the fact that in those cases, substitution of the hydrogen group on the amine did not result in any modification of activity. See *Bluestone*, 135 USPQ at 200 (discussing claims pertaining to the art of fungicides). A contrary result is found in the area of

oxidation dyeing. For that reason, the case law cited by the Examiner is inapplicable to the unique science of the oxidation dyeing of keratinous fibers. Specifically, a para-phenylenediamine derivative can be used as an oxidation base only if one of its two amino groups is either primary or secondary. Therefore, primary and secondary amines do not have the same reactivity as tertiary amines when used as oxidation dyes and are not obvious over them. Consequently, the case law relied upon is inapposite.

Applicants emphasize that regardless of the reactivity of primary, secondary, and tertiary amines, the present invention is directed towards quaternary amines. Contrary to the position taken by the Examiner, a tertiary amine does not render obvious a quaternized aliphatic chain, such as that of formula (IV). As one of ordinary skill in the art would readily realize, quaternized amines are dramatically different from primary, secondary and tertiary amines, given their saturated nature and formal positive charge. Indeed, the case law cited by the Examiner recognizes this difference in function by the Courts' omission of quaternary from any discussion of primary, secondary, and tertiary amines – a strongly telling omission that cannot be ignored by the Examiner. In view of the fact that amines with differing degrees of saturation are not comparable to each other, and especially in view of the fact that quaternary amines, the subject of the present invention, are substantially different from primary, secondary and tertiary amines, one of ordinary skill in the art of hair dyes would be unable to anticipate the technical effect resulting from substitution of a primary, secondary, or tertiary amine with a quaternized amine.

As further evidence that the Examiner has failed to establish a *prima facie* case of obviousness, Applicants point out that the present invention comprises at least one

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cationic group. There is no suggestion or motivation in the reference itself that the compound should be cationic. The Examiner has also failed to establish that knowledge is generally available to one of ordinary skill in the art suggesting that such a cationic compound would be useful as an oxidative base in oxidation dyeing of keratinous fibers.

Finally, the Examiner has not, and indeed cannot, show a reasonable expectation of success surrounding such a cationic formulation. For example, in *In re Dow Chem. Co.*, 837 F.2d 469 (Fed. Cir. 1988), the Federal Circuit made it clear that obviousness cannot be based on an "obvious to try" or "obvious to experiment" standard. *Id.* at 471-73. The Court's instruction is even more important in the art of hair dyes, which are notoriously unpredictable. See, e.g., CHARLES ZVIAK, THE SCIENCE OF HAIR CARE 271-272 (Charles Zviak ed., 1986) (discussing the complexity associated with formulating oxidation dyes and stating that "any varying element can cause a major change"). Here, the Examiner has failed to point to any reasonable expectation of success but rather, has arbitrarily chosen random substituents to create a single compound from a long list of disclosed compounds that he characterizes as "similar" to the claimed compounds.

Thus, for all of the foregoing reasons, we believe that the Examiner has failed to establish a *prima facie* case of obviousness, and Applicants earnestly solicit prompt withdrawal of the obviousness rejection.

### III. Conclusion

In view of these remarks, Applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

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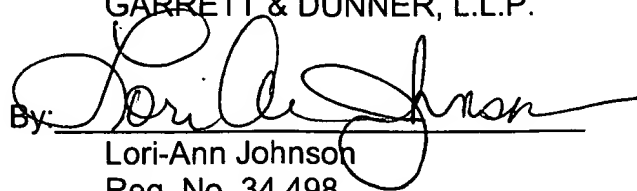
Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: June 3, 2003

By:

  
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